

May 13, 2003

Mr. Mike Partlow
Sensient Flavors
3329 East Prospect Street
Indianapolis, Indiana 46203

RE: Minor Source Operating Permit
MSOP 097-14711-00324

Dear Mr. Partlow:

Enclosed is a Minor Source Operating Permit issued in approval of the Sensient Flavors, located at 5600 West Raymond Street, Indianapolis, Indiana 46241.

Please note that this approval has been issued with certain conditions. If the conditions are not acceptable, contact the Indianapolis Office of Environmental Services (OES) by letter or telephone within fifteen (15) days from the date of this letter. The Division will arrange a meeting to discuss the conditions in questions. If no agreement is reached, the Indianapolis Air Pollution Control Board may be petitioned within fifteen (15) days of the date of the meeting. The Board, after public notice and hearing, may sustain, modify, or rescind the conditions. Note that additional conditions may be included in the Operating Permit issued for the above equipment.

Please keep this Permit (or a copy) on file at the facility (specified in the Permit) available for inspection by the OES and IDEM, Office of Air Quality (OAQ) personnel.

If you have any questions, please contact Ms. Angelique Oligier at (317) 327-2846. Thank you for your time and cooperation in this matter.

Sincerely,

Original Signed by John B. Chavez
John B. Chavez, Administrator

aco

Attachments: MSOP # 097-14711-00324
TSD

**MINOR SOURCE OPERATING PERMIT
OFFICE OF AIR QUALITY
and
INDIANAPOLIS OFFICE OF ENVIRONMENTAL
SERVICES**

**Sensient Flavors
5600 West Raymond Street
Indianapolis, Indiana 46241**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 097-14711-00324	
Issued by: Original Signed by Paul Dubenetzky John B. Chavez, Administrator Office of Environmental Services City of Indianapolis	Issuance Date: May 13, 2003 Expiration Date: May 13, 2008

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**Annual Notification
Malfunction Report**

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and OES. The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates this food flavors production facility.

Authorized Individual: Mike Partlow
Source Address: 5600 West Raymond Street, Indianapolis, Indiana 46241
Mailing Address: 5600 West Raymond Street, Indianapolis, Indiana 46241
General Source Phone: (317) 240-1511
SIC Code: 2087
County Location: Marion
Source Location Status: Attainment for all criteria pollutants
Source Status: Minor Source Operating Permit
Minor Source, under PSD
Minor Source, Section 112 of the Clean Air Act
Not 1 of 28 Source Categories

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

- (a) One (1) Cleaver Brooks boiler, constructed in 1995, identified as B1, with a maximum capacity of 10.46 million Btu per hour (MMBtu/hr), exhausting to stack 001.
- (b) Five (5) boilers, identified as B2 through B6, constructed in 1994, 1964, 1996, 1993, and 1996, respectively, with a combined maximum capacity of 16.17 million Btu per hour (MMBtu/hr), exhausting to stacks 002, 003, 004, and 005.
- (c) Two (2) mixers, constructed in 1983, identified as M1 and M2, with a maximum capacity of 1250 pounds of dry product per hour (lbs/hr) each, using a cyclone as control, identified as RC1, exhausting to stack 008.
- (d) Four (4) mixers, constructed in 1983, identified as M3 through M6, with maximum capacities of 25, 562.5, 562.5, and 1250 pounds of dry product per hour (lbs/hr), respectively, using a baghouse as control, identified as MC1, exhausting to stack 009.
- (e) Three (3) mixers, constructed in 1998, identified as M7 through M9, with maximum capacities of 275, 50, and 100 pounds of dry product per hour (lbs/hr), using a cyclone as control, identified as RC2, exhausting to stack 010.
- (f) Two (2) solid dryers, constructed in 1998, identified as SD1 and SD2, with maximum capacities of 341 pounds per hour (lbs/hr) and 154 pounds per hour (lbs/hr), respectively, using Venturi Scrubber and Pack Bed Scrubber as control, identified as AD1, exhausting to stack 006.
- (g) Two (2) air heaters, constructed in 1998, identified as AH1 and AH2, with maximum capacities of 125 million Btu per hour (MMBtu/hr), using Venturi Scrubber and Pack Bed Scrubber as control, identified as AD1, exhausting to stacks 007A and 007B.
- (h) One (1) solid dryer, constructed in 1998, identified as SD3, with a maximum capacity of 25 pounds per hour (lbs/hr), using cyclone as control, identified as RC1, exhausting to

- (i) One (1) air heater, constructed in 1998, identified as AH3, with maximum capacity of 0.06 million Btu per hour (MMBtu/hr), using cyclone as control, identified as RC1, exhausting to stack 008.
- (j) One hundred one (101) liquid storage tanks, constructed in 1986, with a total maximum capacity of 4000 gallons, exhausting to vents 012-023.

SECTION B GENERAL CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to operate does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

B.5 Modification to Permit [326 IAC 2]

All requirements and conditions of this operating permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.6 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

City of Indianapolis
Office of Environmental Services
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

- (d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and OES on or before the date it is due.

B.7 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days (this time frame is determined on a case by case basis but no more than ninety (90) days) after issuance of this permit, including the following information on each emissions unit:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

City of Indianapolis
Office of Environmental Services
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMP's shall be submitted to IDEM, OAQ, and OES upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, and OES. IDEM, OAQ, and OES may require the Permittee to revise its PMP whenever lack of proper maintenance causes or contributes to any violation. The PMP does not

require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or the City of Indianapolis, OES makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or the City of Indianapolis, OES within a reasonable time.

B.8 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

City of Indianapolis
Office of Environmental Services
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.9 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, OES, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the

purpose of assuring compliance with this permit or applicable requirements.

B.10 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]
Pursuant to [326 IAC 2-6.1-6(d)(3)] :

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, and OES within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, and OES shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

B.11 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P] [326 IAC 6-3-2]

- (a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM and OES, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.5 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
- (2) If there is a change in the following:
- (A) Asbestos removal or demolition start date;
- (B) Removal or demolition contractor; or
- (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

City of Indianapolis
Office of Environmental Services
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326

IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

Testing Requirements

C.7 Performance Testing [326 IAC 3-6]

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
and

City of Indianapolis
Office of Environmental Services
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

no later than thirty-five (35) days prior to the intended test date.

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, and OES not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, and OES, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.8 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

Compliance Monitoring Requirements

C.9 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.10 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.11 Actions Related to Noncompliance Demonstrated by a Stack Test

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected emissions unit while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (b) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1.

Record Keeping and Reporting Requirements

C.12 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the

beginning of said occurrence.

- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.13 Emission Statement [326 IAC 2-6]

- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:
 - (1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
 - (2) Indicate estimated actual emissions of other regulated pollutants (as defined by 326 IAC 2-7-1) from the source, for purposes of Part 70 fee assessment.
- (b) The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30. The annual emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

City of Indianapolis
Office of Environmental Services
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

- (c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and OES on or before the date it is due.

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.14 General Record Keeping Requirements [326 IAC 2-6.1-5]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or the City of

Indianapolis, OES makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or the City of Indianapolis, OES within a reasonable time.

- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when operation begins.

C.15 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

City of Indianapolis
Office of Environmental Services
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and OES on or before the date it is due.
- (c) Unless otherwise specified in this permit, any reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: One (1) boiler, identified as B3, constructed in 1964 with a maximum capacity of 2.73 million Btu per hour (MMBtu/hr), exhausting to stack 003.

Emission Limitations and Standards

D.1.1 Particulate Emissions Limitations for Sources of Indirect Heating [326 IAC 6-2]

Pursuant to 326 IAC 6-2-2, particulate emissions from the boiler, B3, shall not exceed 0.60 pounds per million Btu (lbs/MMBtu).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Five (5) boilers, identified as B1, B2, B4, B5, and B6, constructed in 1994, 1996, 1993, and 1996, respectively, with a combined maximum capacity of 23.9 million Btu per hour (MMBtu/hr), exhausting to stacks 001, 002, 004, and 005.

Emission Limitations and Standards

D.2.1 Particulate Emissions Limitations for Sources of Indirect Heating [326 IAC 6-2]

Pursuant to 326 IAC 6-2-1(d), particulate emissions from indirect heating facilities shall be limited by the following equation:

$$Pt = 1.09/Q^{0.26}$$

where Pt = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.

Q = Maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input of boiler.

Calculations of emissions limitations are on page 1 of 4 of TSD Appendix A. For Q less than 10 MMBtu/hr, Pt shall not exceed 0.6. Limitations for boilers B1, B2, B4, B5, and B6 are limited as follows:

Boiler	PM Em. Limit (lb/MMBtu)
B1	0.51
B2	0.6
B4	0.46
B5	0.6
B6	0.46

D.2.2 Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units [326 IAC 12, 40 CFR 60, Subpart Dc]

Pursuant to the New Source Performance Standard, 326 IAC 12, 40 CFR 60, Subpart Dc:

- (a) Daily natural gas consumption for the Cleaver Brooks natural gas fired boiler, B1, with a maximum capacity of 10.46 million Btu per hour (MMBtu/hr) shall be recorded as per 40 CFR Part 60 Subpart Dc. Records shall be retained for a period of at least five (5) years from the date of the generation of the measurement or record.
- (b) Pursuant to 40 CFR 60 §60.48c(a), the owner or operator of this source shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by §60.7 of this rule.

Record Keeping and Reporting Requirement [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.2.3 Record Keeping Requirements

- (a) To document compliance with Condition D.2.2, the Permittee shall maintain records in accordance with (1) through (3) below.

- (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel oil usage since last compliance determination period;
 - (3) To certify compliance when burning natural gas only, the Permittee shall maintain records of fuel used.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.4 Reporting Requirements

- (a) A certification, signed by the responsible official, that certifies all of the fuels combusted during the period. The natural gas-fired boiler certification does require the certification by the responsible official as defined by 326 IAC 2-7-1(34).

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (a) Two (2) mixers, constructed in 1983, identified as M1 and M2, with a maximum capacity of 1250 pounds of dry product per hour (lbs/hr) each, using cyclone as control, identified as RC1, exhausting to stack 008.
- (b) Four (4) mixers, constructed in 1983, identified as M3 through M6, with maximum capacities of 25, 562.5, 562.5, and 1250 pounds of dry product per hour (lbs/hr), respectively, using a baghouse as control, identified as MC1, exhausting to stack 009.
- (c) Three (3) mixers, constructed in 1998, identified as M7 through M9, with maximum capacities of 275, 50, and 100 pounds of dry product per hour (lbs/hr), using a cyclone as control, identified as RC2, exhausting to stack 010.
- (d) Two (2) solid dryers, constructed in 1998, identified as SD1 and SD2, with maximum capacities of 341 pounds per hour (lbs/hr) and 154 pounds per hour (lbs/hr), respectively, using Venturi Scrubber and Pack Bed Scrubber as control, identified as AD1, exhausting to stack 006.
- (e) One (1) solid dryer, constructed in 1998, identified as SD3, with a maximum capacity of 25 pounds per hour (lbs/hr), using cyclone as control, identified as RC1, exhausting to 008.

Emission Limitations and Standards

D.3.1 Particulate Emissions Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the particulate emissions from the mixers and dryers shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour} \\ \text{and } P = \text{process weight rate in tons per hour}$$

Calculations of emissions limitations are on page 2 of 4 of TSD Appendix A. Limitations for mixers and dryers are limited as follows:

Equipment	PM Em. Limit (lb/hr)
M1	13.107
M2	13.107
M3	4.458
M4	7.676
M5	7.676
M6	13.107
M7	4.752
M8	1.517
M9	2.413
SD1	5.489
SD2	3.223
SD3	0.953

D.3.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
and
INDIANAPOLIS OFFICE OF ENVIRONMENTAL SERVICES
MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	Sensient Flavors
Address:	5600 West Raymond
City:	Indianapolis, Indiana 46241
Phone #:	(317) 240-1511
MSOP #:	097-14711-00324

I hereby certify that Sensient Flavors is still in operation.
 no longer in operation.

I hereby certify that Sensient Flavors is in compliance with the requirements of MSOP 097-14711-00324.
 not in compliance with the requirements of MSOP 097-14711-00324.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ PHONE NO. (_____) _____

LOCATION: (CITY AND COUNTY) _____

PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____

INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____/____/19____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/19____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC,
OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL*
SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO
PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO
EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF
APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

PAGE 1 OF 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

**Indiana Department of Environmental Management
Office of Air Quality
and
City of Indianapolis
Office of Environmental Services**

Technical Support Document (TSD) for a Minor Source Operating Permit

Source Background and Description

Source Name: Sensient Flavors
Source Location: 5600 West Raymond Street
County: Marion
SIC Code: 2087
Operation Permit No.: 097-14711-00324
Permit Reviewer: Angelique Oligier

The Office of Environmental Services (OES) has reviewed an application from Sensient Flavors (formerly Universal Flavors) relating to the construction and operation of a food flavors production facility.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) Cleaver Brooks boiler, constructed in 1995, identified as B1, with a maximum capacity of 10.46 million Btu per hour (MMBtu/hr), exhausting to stack 001.
- (b) Five (5) boilers, identified as B2 through B6, constructed in 1994, 1964, 1996, 1993, and 1996, respectively, with a combined maximum capacity of 16.17 million Btu per hour (MMBtu/hr), exhausting to stacks 002, 003, 004, and 005.
- (c) Two (2) mixers, constructed in 1983, identified as M1 and M2, with a maximum capacity of 1250 pounds of dry product per hour (lbs/hr) each, using a cyclone as control, identified as RC1, exhausting to stack 008.
- (d) Four (4) mixers, constructed in 1983, identified as M3 through M6, with maximum capacities of 25, 562.5, 562.5, and 1250 pounds of dry product per hour (lbs/hr), respectively, using a baghouse as control, identified as MC1, exhausting to stack 009.
- (e) Three (3) mixers, constructed in 1998, identified as M7 through M9, with maximum capacities of 275, 50, and 100 pounds of dry product per hour (lbs/hr), using a cyclone as control, identified as RC2, exhausting to stack 010.
- (f) Two (2) solid dryers, constructed in 1998, identified as SD1 and SD2, with maximum capacities of 341 pounds per hour (lbs/hr) and 154 pounds per hour (lbs/hr), respectively, using Venturi Scrubber and Pack Bed Scrubber as control, identified as AD1, exhausting to stack 006.

- (g) Two (2) air heaters, constructed in 1998, identified as AH1 and AH2, with maximum capacities of 125 million Btu per hour (MMBtu/hr), using Venturi Scrubber and Pack Bed Scrubber as control, identified as AD1, exhausting to stacks 007A and 007B.
- (h) One (1) solid dryer, constructed in 1998, identified as SD3, with a maximum capacity of 25 pounds per hour (lbs/hr), using cyclone as control, identified as RC1, exhausting to stack 008.
- (i) One (1) air heater, constructed in 1998, identified as AH3, with maximum capacity of 0.06 million Btu per hour (MMBtu/hr), using cyclone as control, identified as RC1, exhausting to stack 008.
- (j) One hundred one (101) liquid storage tanks, constructed in 1986, with a total maximum capacity of 4000 gallons, exhausting to vents 012-023.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
001	B1	28	1.67	3.615	480
002	B2	29	1.08	1.693	400
003	B3	36	1.67	943	120
004	B4, B6	28	1.08	657	120
005	B5	24	1.33	325	130
006	SD1, SD2	70	1.5	5500	12
007a	AH1	70	1.5	420	474
007b	AH2	70	1.5	420	279
008	M1, M2, SD3, AH3	38	1.5	80	6000
009	M3, M4, M5, M6	37	1.67	80	7000
010	M7, M8, M9	38	0.83	80	2500
012-023		36	1.58	80	6500

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Administrator that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on July 18, 2001.

Emission Calculations

See Appendix A of this document for detailed emissions calculations.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	69.861
PM-10	69.861
SO ₂	0.072
VOC	18.548
CO	1.847
NO _x	13.696
HAPs	negligible

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants are less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of particulate pollutants is greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. An MSOP will be issued.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (d) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Actual Emissions

No previous emission data has been received from the source.

County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM-10	attainment
SO ₂	maintenance attainment
NO ₂	attainment
Ozone	maintenance attainment
CO	attainment
Lead	unclassifiable

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Marion County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	69.861
PM10	69.861
SO ₂	0.072
VOC	18.548
CO	1.847
NO _x	13.696
HAPs	negligible

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit 097-14711-00324, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the OES inspector assigned to the source.

Federal Rule Applicability

- (a) (1) This source is subject to the New Source Performance Standard, 326 IAC 12, 40 CFR 60, Subpart Dc, since operation of the Cleaver Brooks boiler, identified

as B1, commenced after June 9, 1989 and the maximum design heat input capacity is greater than ten (10) MMBtu/hr but less than one hundred (100) MMBtu/hr. Although they are steam generating units, boilers B2 through B6 are not subject to the New Source Performance Standard, 326 IAC 12, 40 CFR 60, Subpart Dc, since their individual maximum design heat input capacities are less than ten (10) MMBtu/hr.

- (A) Daily natural gas consumption for the Cleaver Brooks natural gas fired boiler, with a maximum capacity of 10.46 million Btu per hour (MMBtu/hr) shall be recorded as per 40 CFR Part 60 Subpart Dc. Records shall be retained for a period of at least five (5) years from the date of the generation of the measurement or record.
 - (B) Pursuant to 40 CFR 60 §60.48c(a), the owner or operator of this source shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by §60.7 of this rule.
- (2) This source is not subject to the New Source Performance Standard, 326 IAC 12, 40 CFR 60, Subpart Kb, because the storage vessels have capacities of less than forty (40) cubic meter (m³).
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 1-6-3 (Preventive Maintenance Plan)

This source is subject to 326 IAC 1-6-3 because it is required to obtain a Permit. Any person responsible for operating any facility required to obtain a Permit shall prepare and maintain a Preventive Maintenance Plan which includes the following:

- (a) Identification of responsible individuals for inspecting, maintaining and repairing emission control devices.
- (b) Description of items and conditions that will be inspected and an inspection schedule.
- (c) Identification of replacement parts in inventory for quick replacement.

The Preventive Maintenance Plan shall be submitted upon request and subject to review and approval by OES.

326 IAC 2-1.1-11 (Compliance Monitoring)

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements)

This source is not a major source. This source not one (1) of the twenty-eight (28) listed source categories. The potential to emit each criteria pollutant from the entire source is less than 250 tons per year. Therefore, this source is a minor source and the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) are not applicable.

326 IAC 3 (Monitoring Methods)

Any monitoring or testing shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)

This source will emit less than ten (10) tons per year of a single HAP or twenty-five (25) tons per year of a combination of HAPs, and construction occurred before July 27, 1997. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of VOC and is located in Marion County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Sources

326 IAC 6-1-2 (Particulate Emissions Limitations)

This rule does not apply to this source because the potential to emit of particulate is less than one hundred (100) tons per year and it is not a specifically listed source in 326 IAC 6-1-12.

326 IAC 6-2-2 (Particulate Emissions Limitations for Sources of Indirect Heating)

- (a) The boiler, identified as B3, is subject to the provisions of 326 IAC 6-2-2 because it is a source of indirect heat and is located in Marion County and was constructed prior to September 21, 1983. Particulate emissions from indirect heating facility, B3, shall be limited by the following equation:

$$Pt = 0.87/Q^{0.16} = 0.87/2.73^{0.16} = 0.74$$

where Pt = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.

Q = Maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input of B3.

For Q less than 10 million Btu per hour (MMBtu/hr), Pt shall not exceed 0.60. Maximum operating capacity for B3 is less than 10 million Btu per hour (mmBtu/hr). Therefore, particulate matter emissions from the boiler, B3, shall not exceed 0.6 pounds per million Btu (lbs/MMBtu).

- (b) The boilers B1, B2, B4, B5, and B6 are subject to the provisions of 326 IAC 6-2-1(d) because they are sources of indirect heat and are located in Marion County and were constructed after September 21, 1983. Particulate emissions from indirect heating facilities shall be limited by the following equation:

$$Pt = 1.09/Q^{0.26}$$

where Pt = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.

Q = Total maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input.

Calculations of emissions limitations are on page 1 of 4 of TSD Appendix A. For Q less than 10 MMBtu/hr, Pt shall not exceed 0.6. Limitations for boilers B1, B2, B4, B5, and B6 are limited as follows:

Boiler	PM Em. Limit (lb/MMBtu)
B1	0.51
B2	0.6
B4	0.46
B5	0.6
B6	0.46

326 IAC 6-3-2 (Particulate Emissions Limitations)

The particulate emissions from the mixers and dryers shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Calculations of emissions limitations are on page 2 of 4 of TSD Appendix A. Limitations for mixers and dryers are limited as follows:

Equipment	PM Em. Limit (lbs/hr)
M1	13.107
M2	13.107
M3	4.458
M4	7.676
M5	7.676
M6	13.107
M7	4.752
M8	1.517
M9	2.413
SD1	5.489
SD2	3.223
SD3	0.953

326 IAC 7-1 (Sulfur Dioxide Emission Limitations)

This rule does not apply to this source because the potential to emit of each individual unit is less than 25 tons per year or 10 pounds per hour of Sulfur Dioxide.

Conclusion

The operation of this food flavors production facility shall be subject to the conditions of the attached proposed Minor Source Operating Permit 097-14711-00324.

Appendix A: Potential Emissions (PTE) Calculations

Company Name: **Sensient Flavors**
 Address, City, IN Zip: **5600 West Raymond, Indianapolis, IN 46241**
 CP: **097-14711-00324**
 Reviewer: Angelique Oligier

Total Emissions (Natural Gas Combustion)

Unit ID #	S/V ID	Manuf./Type	Date installed	Heat Input, MMBtu/hr	Pot.Throughput, MMscf/yr	PM, ton/yr	SO2, ton/yr	NOx, ton/yr	VOC, ton/yr	CO, ton/yr	PM, lb/MMBtu/hr	Qtotal (326 IAC 6-2)	PM Emission Limit (326 IAC 6-2)
B3	003	boiler	1964	2.73	22.8	0.137	0.007	1.139	0.091	0.239	0.011	2.730	0.741
B5	005	boiler	1993	0.94	7.8	0.047	0.002	0.392	0.031	0.082	0.011	3.670	0.777
B2	002	boiler	1994	4.9	40.9	0.245	0.012	2.044	0.164	0.429	0.011	8.570	0.624
B1	001	Brooks Boiler	1995	10.46	87.3	0.598	0.026	6.109	0.253	0.253	0.013	19.030	0.507
B4	004	boiler	1996	3.8	31.7	0.190	0.010	1.585	0.127	0.333	0.011	22.830	0.483
B6	004	boiler	1996	3.8	31.7	0.190	0.010	1.585	0.127	0.333	0.011	26.630	0.464
AH1	007A	Air Heater	New	1.25	10.4	0.063	0.003	0.521	0.042	0.110	0.011		1.029
AH2	007B	Air Heater	New	0.71	5.9	0.036	0.002	0.296	0.024	0.062	0.011		1.192
AH3	008	Air Heater	New	0.06	0.5	0.003	0.000	0.025	0.002	0.005	0.011		2.265
Totals:				25.0	208.4	1.325	0.063	12.166	0.738	1.525			

Natural Gas.

1 MMscf of Natural Gas has a heating value of 1050 MMBtu.
 Potential Throughput (Mmscf/year)=Heat Input Capacity (MMBtu/hr) x 8760hr/year / 1050 MMBtu/MMscf
 Emission Factors are from AP 42
 Assuming all particulates are less than 10 Micrometers in diameter
 Emission (tons/yr)=Throughput (MMscf/yr) x Emission Factor (lb/MMscf) /2000 lb/ton.

Emission Factors, lb/Mmscf (AP-42)

MMBtu/h	PM	SO2	NOx	VOC	CO
0.3-10	12	0.6	100	8	21
10-100	13.7	0.6	140	5.8	5.8

**Appendix A: Potential Emissions (PTE) Calculations
Sensient Flavors**

097-14711-00324

Particulate Matter Emissions

Equipment	Em.Unit ID	Control Eq.	Control Efficiency	Maximum Production Rate, lb/hr	Emission Factor	Potential Emissions, before control			Potential Emissions after control, ton/yr	PM Emission Limit (326 IAC 6-3-2)	
						lb/hr	lb/day	ton/yr		lb/hr	ton/yr
Mixer	M1	RC1 - Rotoclone	75%	1,250	0.1%	1.250	30.000	5.475	1.369	2.992	13.107
Mixer	M2	RC1 - Rotoclone	75%	1,250	0.1%	1.250	30.000	5.475	1.369	2.992	13.107
Mixer	M3	MC1 - Baghouse	99.5%	250	0.1%	0.250	6.000	1.095	0.005	1.018	4.458
Mixer	M4	MC1 - Baghouse	99.5%	562.5	0.1%	0.563	13.500	2.464	0.012	1.753	7.676
Mixer	M5	MC1 - Baghouse	99.5%	562.5	0.1%	0.563	13.500	2.464	0.012	1.753	7.676
Mixer	M6	MC1 - Baghouse	99.5%	1,250	0.1%	1.250	30.000	5.475	0.027	2.992	13.107
Mixer	M7	RC2-Rotoclone	75.0%	275	0.1%	0.275	6.600	1.205	0.301	1.085	4.752
Mixer	M8	RC2-Rotoclone	75.0%	50	0.1%	0.050	1.200	0.219	0.055	0.346	1.517
Mixer	M9	RC2-Rotoclone	75.0%	100	0.1%	0.100	2.400	0.438	0.110	0.551	2.413
Dryer	SD1	AD1-Venturi Scrubber + Packed Bed Scrubber	90%	341	2.0%	6.820	163.680	29.872	2.987	1.253	5.489
Dryer	SD2	AD1-Venturi Scrubber + Packed Bed Scrubber	90%	154	2.0%	3.080	73.920	13.490	1.349	0.736	3.223
Dryer	SD3	RC1 - Rotoclone	75%	25	2.0%	0.500	12.000	2.190	0.548	0.218	0.953
Totals:						15.950	382.800	69.861	8.144		77.479

326 IAC 6-3-2 (Particulate emission limitations):

$$E = 4.10 P^{0.67},$$

where: E = rate of emission in lb/hr;

P = process weight in ton/hr.

**Appendix A: Potential Emissions (PTE) Calculations
Sensient Flavors
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Liquid Storage Tanks VOC Emissions

Vent/Stack ID #	Amount of tanks	Location	Description	Capacity, gal			VOC Potential Emissions, ton/yr
				Min.	Max.	Total	
12, 013, 01	41	Liquid Compound s	Portable & Mez. Citrus Tanks	300	5,000	72,150	3.37
015	10	Vanilla Extr	Process Tanks	250	1,000	5,500	0.36
016	28	Alcohol Extract	Process Tanks	175	4,000	22,575	1.58
017	2	Glass Still/Still Room	Process Tanks	400	500	900	0.01
018 & 019	12	Tallow Room	Process Tanks/Reactors (2)	150	600	5,700	0.50
020 & 021	6	Reflux Room	Still/Reflux/Reactor/Process Tanks	5	250	485	0.25
022 & 023	2	SW Dock	Storage Tanks	4,000	4,000	8,000	0.23
Total:							6.30

Stack ID	Tanks Emission Unit ID #
12, 013, 01	337, 362, 391, 425-462, 515
015	334, 501, 503, 304, 505, 509, 510-513
016	24, 396, 600-624, 734
017	S25, S60
018 & 019	724-735
020 & 021	751-756
022 & 023	Alcohol1

All tanks' capacity is below 19,800 Gal (75 cu.m), which is less than applicability level of NSPS: 40 CFR 60, Subpart Kb.

Calculations were performed by the Permittee using the USEPA Tanks3 Program. ERMD reviewed these calculations and accepted its results as a base for permitting considerations.

**Appendix A: Potential Emissions (PTE) Calculations
Sensient Flavors**

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VOC Emissions

Equipment	Em.Unit ID	Control Eq.	Control Efficiency	Maximum Production Rate, lb/hr	Emission Factor	Potential Emissions, before control			Potential Emissions, after control ton/yr
						lb/hr	lb/day	ton/yr	
Dryer	SD1	Scrubber + Packed Bed Scrubber	80%	341	0.5%	1.705	40.920	7.468	1.494
Dryer	SD2	Scrubber + Packed Bed Scrubber	80%	154	0.5%	0.770	18.480	3.373	0.675
Dryer	SD3	RC1 - Rotoclor	80%	25	0.5%	0.125	3.000	0.548	0.110
Total:						2.600	62.400	11.388	2.278

Total sourcewide potential emissions, ton/yr

PM/PM10		SO2	NOx	VOC		CO
Before Control	After Control			Before control	After Control	
71.186	9.469	0.063	12.166	18.426	9.315	1.525